

IN THE CLAIMS

This listing of the claims replaces all prior listings:

1. (Currently Amended) An information processing apparatus for transmitting information to a transmission party via a network in predetermined units, said information processing apparatus comprising:

a first dividing unit for dividing information into a first set of information units;

a first transmission unit for transmitting first information to said transmission party
[[via]] through said network in a via said first set of first information units;

a receiving unit for receiving, from said transmission party, information indication about the reception of said first information set of information units transmitted by said first transmission unit;

a clocking unit for clocking the time from when said first information is transmitted;

a determination unit for determining whether or not the time clocked by said clocking unit exceeds a reference value;

a second dividing unit for dividing each of said first set of information units into a second set of information units; and

a second transmission unit for retransmitting transmitting said second set of information units first information when said determination unit determines that the time clocked by said clocking unit does not exceed said reference value and for transmitting second information via said network in a first set of second information units when said determination unit determines that the time clocked by said clocking unit exceeds said reference value, in a case where said received information received by said receiving unit indicates that said transmission party has not yet received said first information; and

a dividing unit for dividing each of the first set of first information units and each of the first set of second information units into corresponding second sets of information units;

wherein,

said first transmission unit and second transmission unit transmit said first information and second information by using their corresponding second sets of information units.

2. (Currently Amended) An information processing apparatus according to claim 1, wherein said first ~~sets~~ set of ~~first~~ information units and ~~said~~ second ~~sets~~ set of said ~~second~~ information units comprise packets.

3. (Cancelled).

4. (Currently Amended) An information processing apparatus according to claim ~~[[1]]~~ 13, further comprising a setting unit for setting a flag indicating that the time clocked by said clocking unit exceeds said reference value when determined by said determination unit.

5. (Previously Presented) An information processing apparatus according to claim 4, further comprising:

a writing unit for writing said flag into said second information which is transmitted by said second transmission unit when said flag is set by said setting unit; and

a clearing unit for clearing said flag when all of said second sets of said second units which form one of said first information or second information units are transmitted to said transmission party.

6. (Currently Amended) An information processing method for use with an information processing apparatus for transmitting information to a transmission party via a network in predetermined units, said information processing method comprising:

a first dividing step for dividing information into a first set of information units;

a first transmission step of transmitting first information to said transmission party [[via]] through said network in a via said first set of ~~first~~ information units;

a receiving step of receiving, from said transmission party, ~~receiving information indication~~ about the reception of said first ~~information set of information units~~ transmitted in said first transmission step;

a clocking step of clocking the time from when said first information is transmitted;

a determination step of determining whether or not the time clocked in said clocking step exceeds a reference value;

a second dividing step for dividing each of said first set of information units into a second set of information units; and

a second transmission step of ~~retransmitting~~ transmitting said second set of information units first information when said determination step determines that the time clocked in said clocking step ~~does not exceed said reference value and for transmitting second information via said network in a first set of second information units when said determination step determines that the time clocked in said clocking step exceeds said reference value, in a case where said received information received in said receiving step indicates that said transmission party has not yet received said first information;~~ and

a dividing step of dividing each of said first set of first information units corresponding to first information and each of said first set of second information into corresponding second sets of information units;

wherein;

said first transmission unit and second transmission unit transmit said first information and second information by using their corresponding second sets of information units.

7. (Currently Amended) A ~~recording~~ computer-readable medium having recorded thereon encoded with a computer-readable program in a case where a computer controls an operation of transmitting information to a transmission party via a network in predetermined units, said program comprising instructions for :

a first dividing step for dividing information into a first set of information units;

a first transmission step of transmitting first information to said transmission party ~~[[via]]~~ through said network ~~in a via said~~ first set of first information units;

a receiving step of receiving, from said transmission party, ~~receiving information indication~~ about the reception of said first information set of information units transmitted in said first transmission step;

~~a clocking step of clocking the time from when said first information is transmitted;~~

~~a determination step of determining whether or not the time clocked in said clocking step exceeds a reference value;~~

a second dividing step for dividing each of said first set of information units into a second set of information units; and

a second transmission step of retransmitting transmitting said second set of information units first information when said determination step determines that the time clocked in said clocking step does not exceed said reference value and for transmitting second information via said network in a first set of second information units when said determination step determines that the time clocked in said clocking step exceeds said reference value, in a case where said received information received in said receiving step indicates that said transmission party has not yet received said first information; and

a dividing step of dividing each of said first set of first information units corresponding to first information and each of said first set of second information into corresponding second sets of information units;

wherein;

said first transmission unit and second transmission unit transmit said first information and second information by using their corresponding second sets of information units.

8. (Cancelled)

9. (Currently Amended) An information processing apparatus for receiving information, transmitted [[via]] through a network, [[for]] via individual second packets which are created by dividing ~~information of~~ individual first packets which are in turn created by dividing said received information, said information processing apparatus comprising:

a receiving unit for receiving ~~said information transmitted for each of~~ said second packets via said network;

a storage unit for storing, for each of said corresponding first packets, ~~information for~~ each of said second packets received by said receiving unit;

an assembling unit for assembling ~~information for each of~~ said second packets stored in said storage unit into ~~information for each of~~ said corresponding first packets before being divided;

a first deletion unit for deleting each of said second packets, stored in said storage unit, ~~corresponding to said assembled information for each of said second packets~~ when said each of said second packets is assembled to reproduce ~~into~~ said corresponding individual first packets by said assembling unit;

a determination unit for determining whether or not a predetermined flag is contained in said second packets ~~the information-~~ received by said receiving unit; and

a second deletion unit for deleting said second packets stored in said storage unit, corresponding to said first packet which is immediately prior to another transmitted first packet whose corresponding second packets are determined to contain flags, ~~when said determination step determines that said flags are contained in the information received in said receiving step.~~

10. (Currently Amended) An information processing method for use with an information processing apparatus for receiving information, transmitted ~~[[via]]~~ through a network, for individual second packets which are created by dividing ~~information for~~ individual first packets which are in turn created by dividing said received information, said information processing method comprising:

a receiving step of receiving ~~said information transmitted for each of~~ said second packets via said network;

a storing step of storing, for each of said corresponding first packets, ~~information for each of~~ said second packets received in said receiving step;

an assembling step of assembling ~~information for each of~~ said second packets, stored in said storing step, into ~~information for each of~~ said corresponding first packets before being divided;

a first deletion step of deleting each of said second packets, stored in said storing step, ~~corresponding to said assembled information for each of said second packets~~ when said each of said second packets is assembled to reproduce ~~into~~ said corresponding individual first packets in said assembling step;

a determination step of determining whether or not a predetermined flag is contained in said second packets ~~the information-~~ received in said receiving step; and

a second deletion step of deleting said second packets, stored in said storing step, corresponding to said first packet which is immediately prior to another transmitted first packet whose corresponding second packets are determined to contain flags, ~~when said determination step determines that said flags are contained in the information received in said receiving step.~~

11. (Currently Amended) ~~A recording computer-readable medium having recorded thereon~~ encoded with a computer-readable program for causing a computer to perform an operation of receiving information, transmitted via a network, for individual second packets which are created by dividing information for individual first packets, said program comprising instructions for:

a receiving step of receiving ~~said information transmitted for each of~~ said second packets via said network;

a storing step of storing, for each of said corresponding first packets, ~~information for each of~~ said second packets received in said receiving step;

an assembling step of assembling ~~information for each of~~ said second packets, stored in said storing step, into ~~information for each of~~ said corresponding first packets before being divided;

a first deletion step of deleting each of said second packets, stored in said storing step, ~~corresponding to said assembled information for each of said second packets~~ when each of said second packets is assembled to reproduce ~~into~~ said corresponding individual first packets in said assembling step;

a determination step of determining whether or not a predetermined flag is contained in said second packets ~~the information~~ received in said receiving step; and

a second deletion step of deleting said second packets, stored in said storing step, corresponding to said first packet which is immediately prior to another transmitted first packet whose corresponding second packets are determined to contain flags, ~~when said determination step determines that said flags are contained in the information received in said receiving step.~~

12. (Currently Amended) A computer-readable medium encoded with a computer-readable program for causing a computer to perform an operation of receiving information,

transmitted via a network, for individual second packets which are created by dividing information for individual first packets, said program comprising instructions for:

a receiving step of receiving ~~said information transmitted for each of~~ said second packets via said network;

a storing step of storing, for each of said corresponding first packets, ~~information for each of~~ said second packets received in said receiving step;

an assembling step of assembling ~~information for each of~~ said second packets, stored in said storing step, into ~~information for each of~~ said corresponding first packets before being divided;

a first deletion step of deleting each of said second packets, stored in said storing step, ~~corresponding to said assembled information for each of said second packets~~ when each of said second packets is assembled to reproduce ~~into~~ said corresponding individual first packets in said assembling step;

a determination step of determining whether or not a predetermined flag is contained in said second packets ~~the information~~ received in said receiving step; and

a second deletion step of deleting said second packets, stored in said storing step, corresponding to said first packet which is immediately prior to another transmitted first packet whose corresponding second packets are determined to contain flags, ~~when said determination step determines that said flags are contained in the information received in said receiving step~~

13. (New) An information processing apparatus according to claim 1, further comprising:

a clocking unit for clocking the time from when said transmission of each unit of said first set of information units is started; and

a determination unit for determining whether or not the time clocked by said clocking unit exceeds a reference value,

wherein,

the first transmission unit retransmits said a unit of said first set of information units when said determination unit determines that the time clocked by said clocking unit does not exceed said reference value and transmits another unit of said first set of information units when said determination unit determines that the time clocked by said clocking unit exceeds said

reference value, in a case where said indication received by said receiving unit indicates that said transmission party has not yet received said unit of said first set of information units.

14. (New) An information processing method according to claim 6, further comprising:
a clocking step for clocking the time from when said transmission of each unit of said first set of information units is started; and

a determination step for determining whether or not the time clocked by said clocking unit exceeds a reference value,

wherein,

a unit of said first set of information units is retransmitted when that the time clocked by said clocking unit is determined not to exceed said reference value and another unit of said first set of information units is transmitted when said time clocked by said clocking unit is determined to exceed said reference value, in a case where said indication received by said receiving unit indicates that said transmission party has not yet received said unit of said first set of information units.

15. (New) A computer-readable medium having recorded thereon encoded with a computer-readable program according to claim 7, further comprising:

a clocking step for clocking the time from when said transmission of each unit of said first set of information units is started; and

a determination step for determining whether or not the time clocked by said clocking unit exceeds a reference value,

wherein,

a unit of said first set of information units is retransmitted when that the time clocked by said clocking unit is determined not to exceed said reference value and another unit of said first set of information units is transmitted when said time clocked by said clocking unit is determined to exceed said reference value, in a case where said indication received by said receiving unit indicates that said transmission party has not yet received said unit of said first set of information units.